

## **ABSTRACT**

5 A plurality of printing jobs associated with a printing environment can be initially evaluated. Such a printing environment can be implemented as a print shop or another lean document production environment. A set of minimal resource capacities can then be calculated as a multi-objective optimization using a linear programming (LP) analysis. Alternatively, in a generalized geometrical algorithm, at least one peak-demand production rate associated  
10 with the most critical resource can first be estimated, in response to evaluating the plurality of printing jobs. Thereafter, minimal resource capacities of the plurality of resources of the printing environment can be hierarchically calculated based on estimating the previously determined peak-demand production rate of higher priority.